

## **Z-2 Prototype Space Suit Development**

NASA's Z-2 prototype space suit is the highest fidelity pressure garment from both hardware and systems design perspectives since the Shuttle Extravehicular Mobility Unit (EMU) was developed in the late 1970's. Upon completion it will be tested in the 11' human-rated vacuum chamber and the Neutral Buoyancy Laboratory (NBL) at the NASA Johnson Space Center to assess the design and to determine applicability of the configuration to micro-, low- (asteroid), and planetary- (surface) gravity missions. This paper discusses the 'firsts' the Z-2 represents. For example, the Z-2 sizes to the smallest suit scye bearing plane distance for at least the last 25 years and is being designed with the most intensive use of human models with the suit model. The paper also provides a discussion of significant Z-2 configuration features, and how these components evolved from proposal concepts to final designs.

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